

FIG. 1

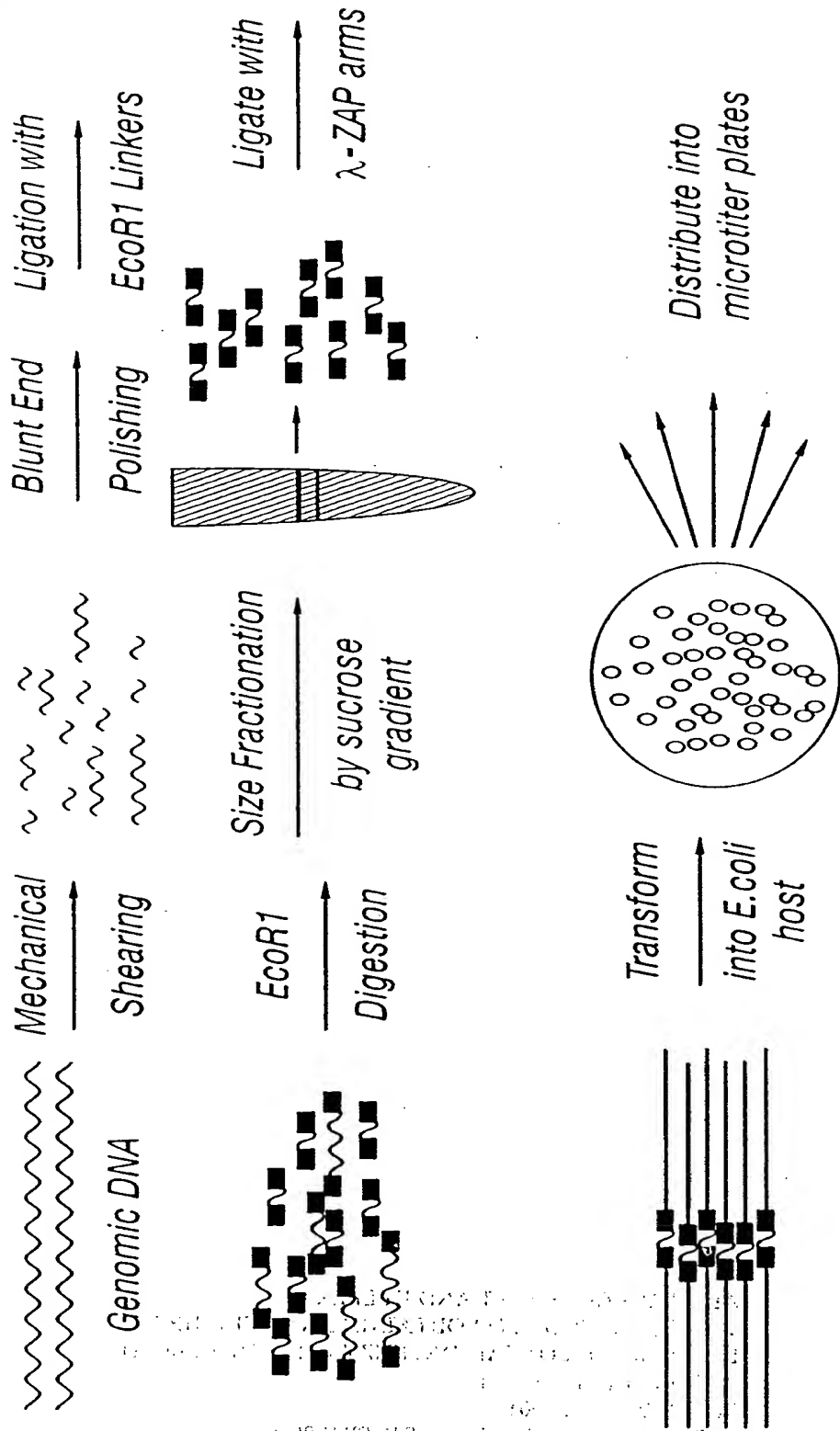
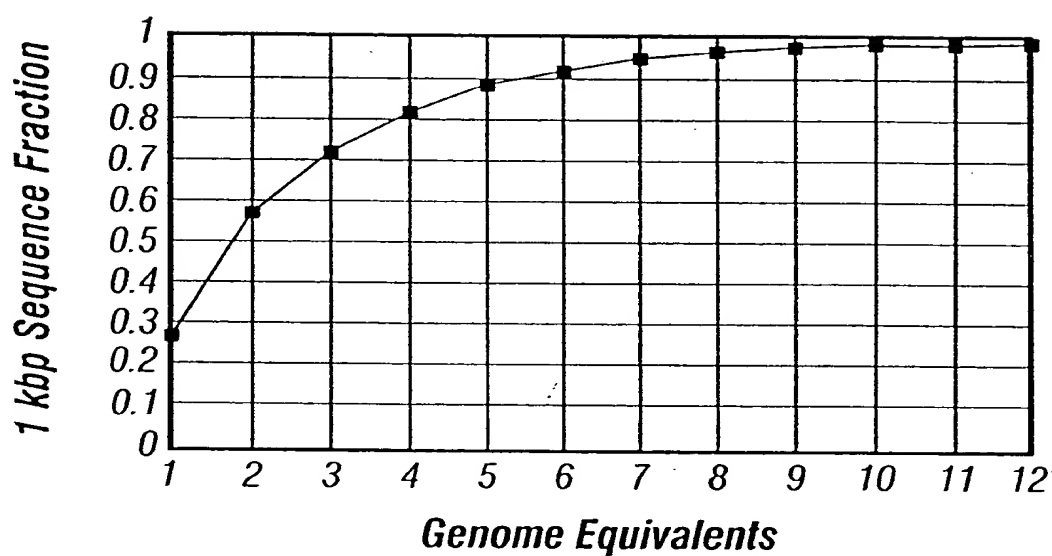


FIG. 2



**FIG. 3**

FIG. 3 is a line graph showing the 1 kbp Sequence Fraction versus Genome Equivalents. The X-axis represents Genome Equivalents from 1 to 12. The Y-axis represents the 1 kbp Sequence Fraction from 0 to 1.0. The data points are connected by a line, showing a rapid increase in the sequence fraction as genome equivalents increase, eventually plateauing near 1.0.

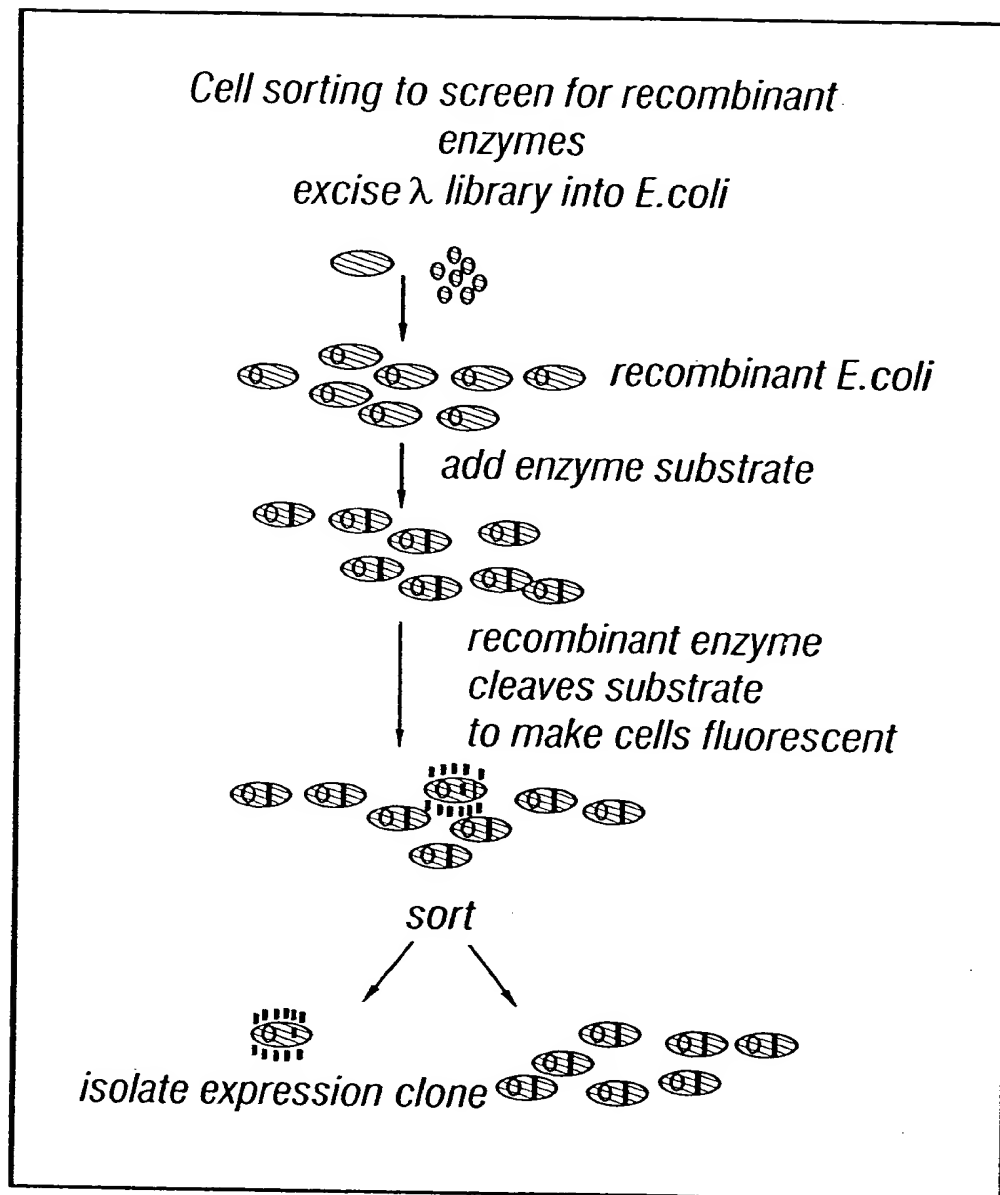
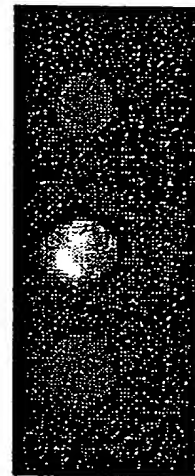


FIG. 4



### *$\beta$ -Gal clone with different substrates*

- cells were stained with FDG, CMFDG or C12FDG, incubated for 30 min. at 70°C, spotted onto a slide and exposed to UV light.
- bright spot indicates staining of cells



FDG

C12FDG

CMFDG

**FIG. 5**

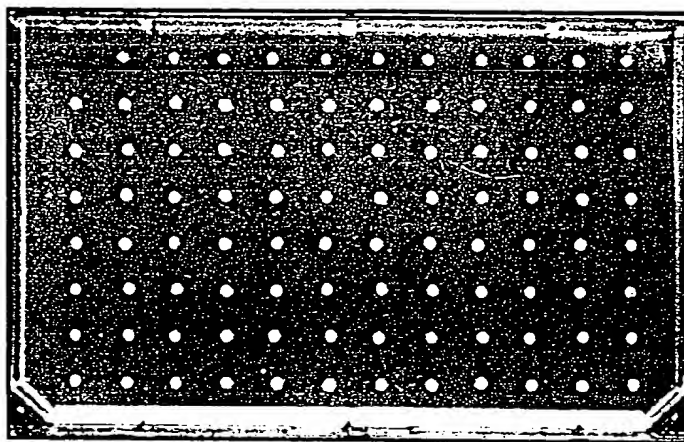


FIG. 6

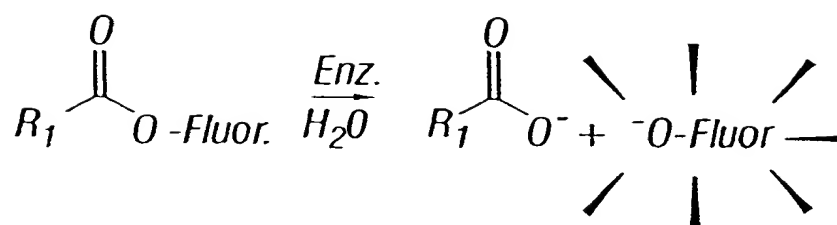


FIG. 7

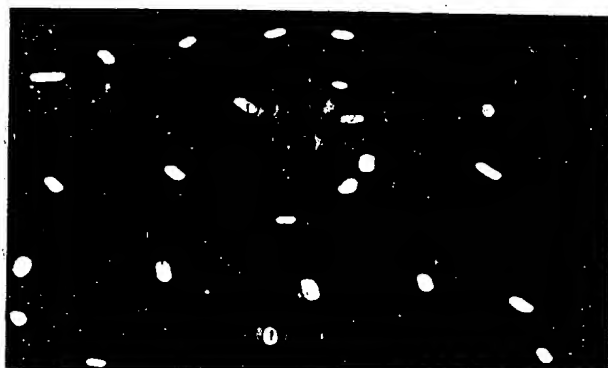


FIG. 8



**FIG. 9**

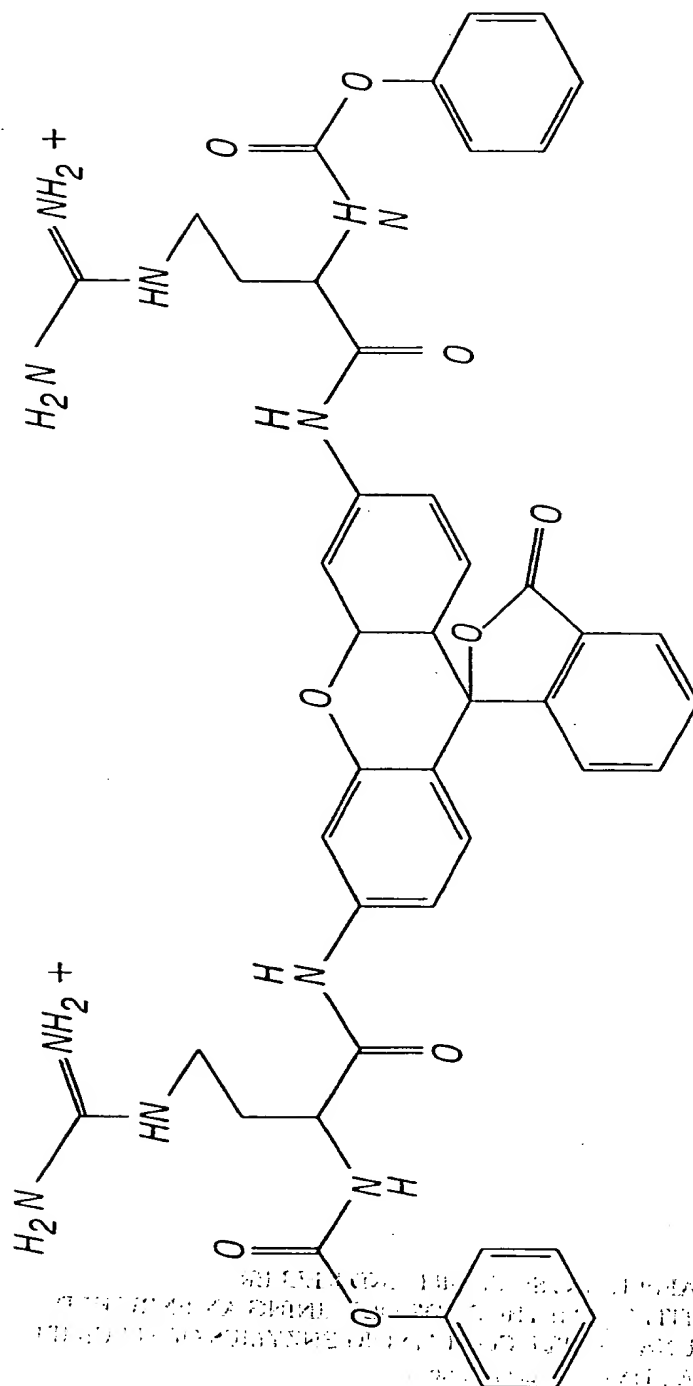


FIG. 10



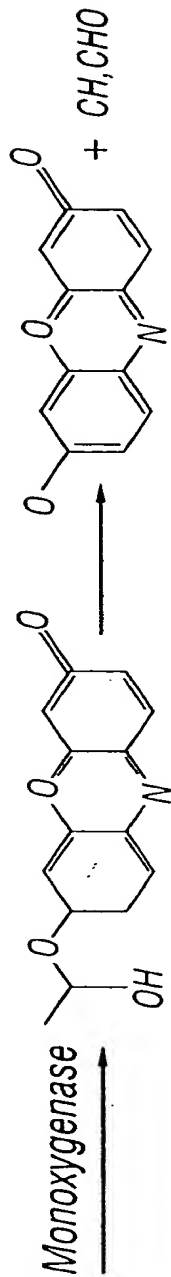
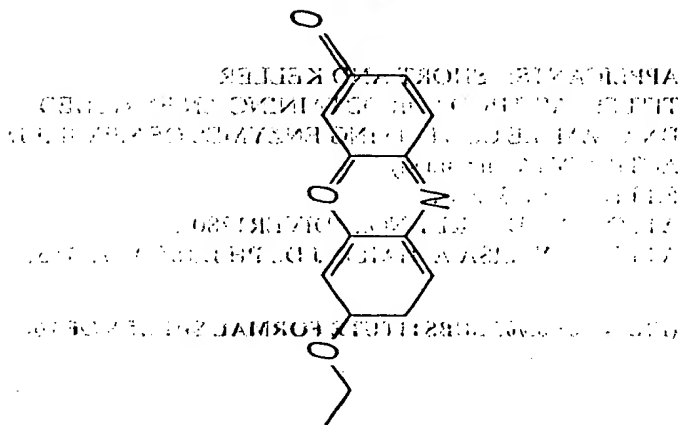


FIG. 11

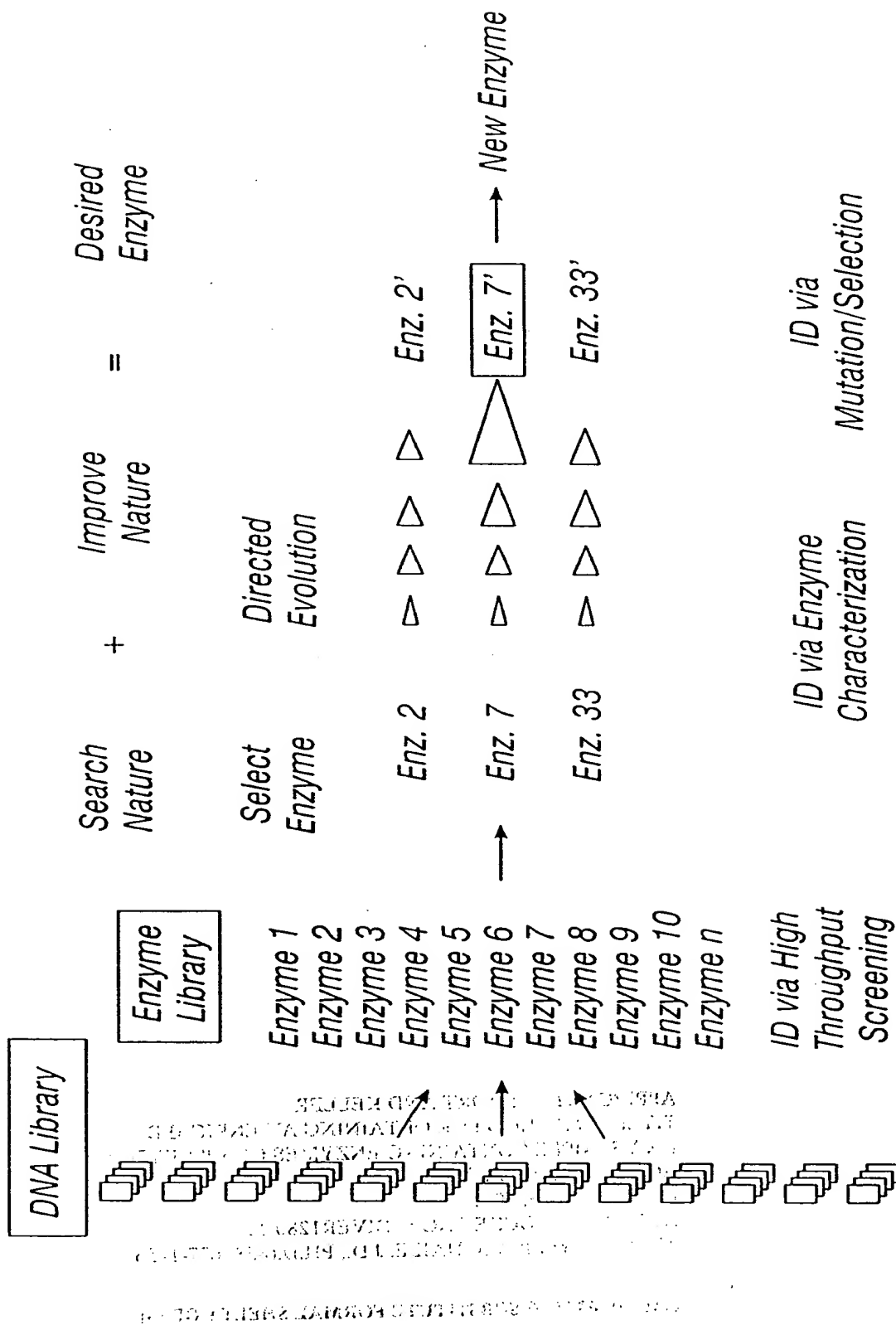


FIG. 12

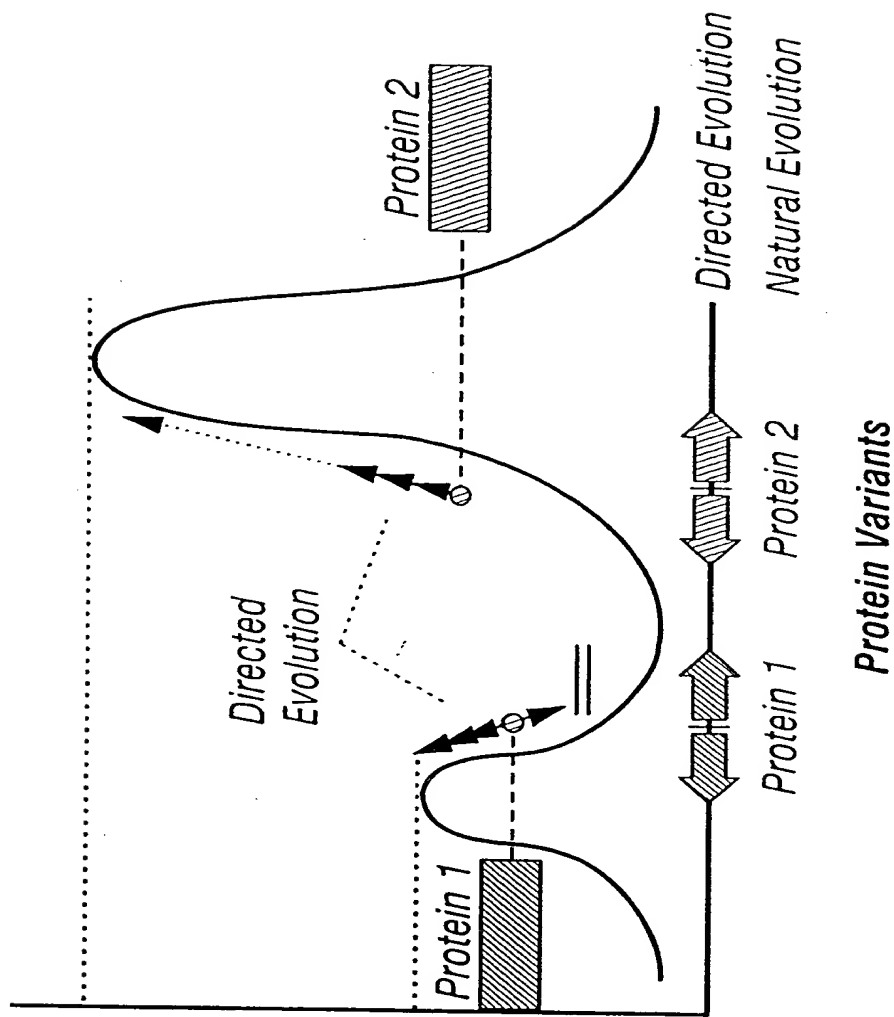
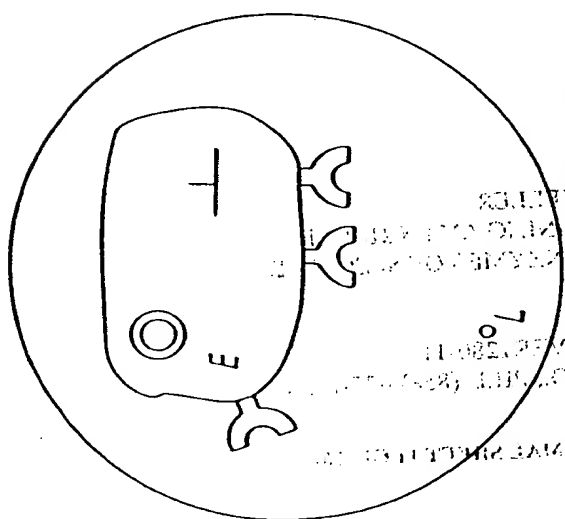
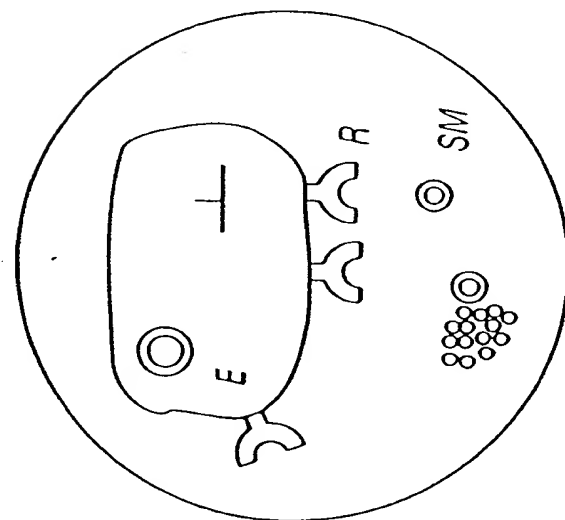
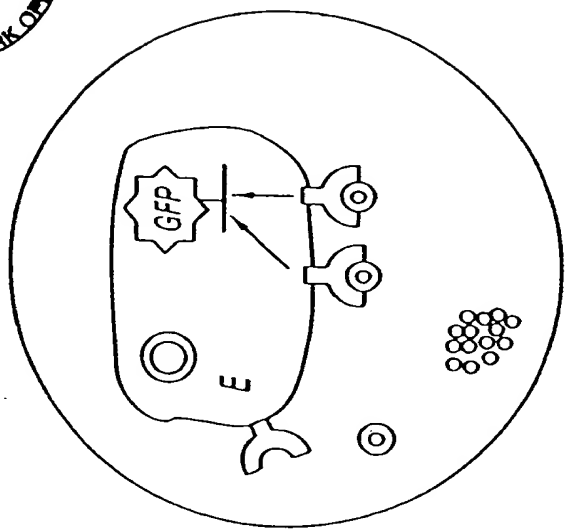


FIG. 13



Receptor binding of small molecule & GFP reporting

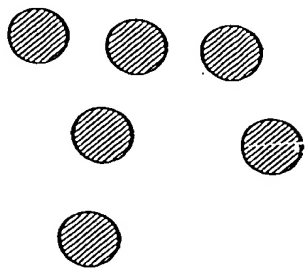
Growth and expression of small molecule from library

Co-encapsulation Library + Eukaryote

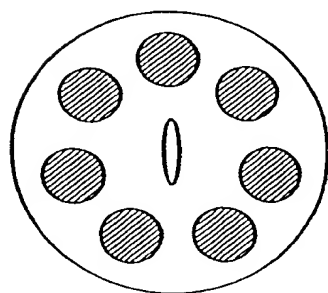
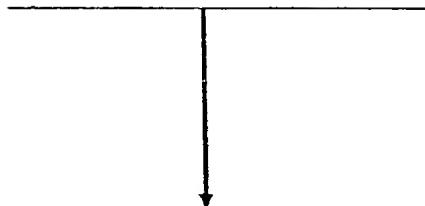
E=Eukaryotic assay organism L=Large insert library SM=Small molecule  
GFP= Green fluorescent protein R=Eukaryotic receptor

FIG. 14

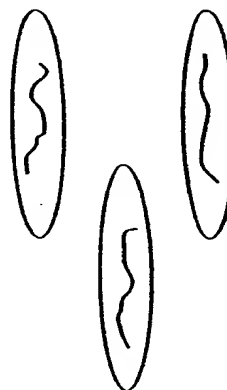
Test organisms



encapsulate

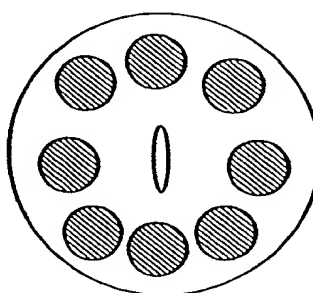
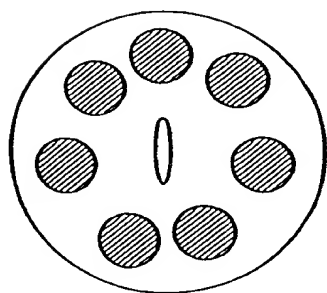


Pathway clones



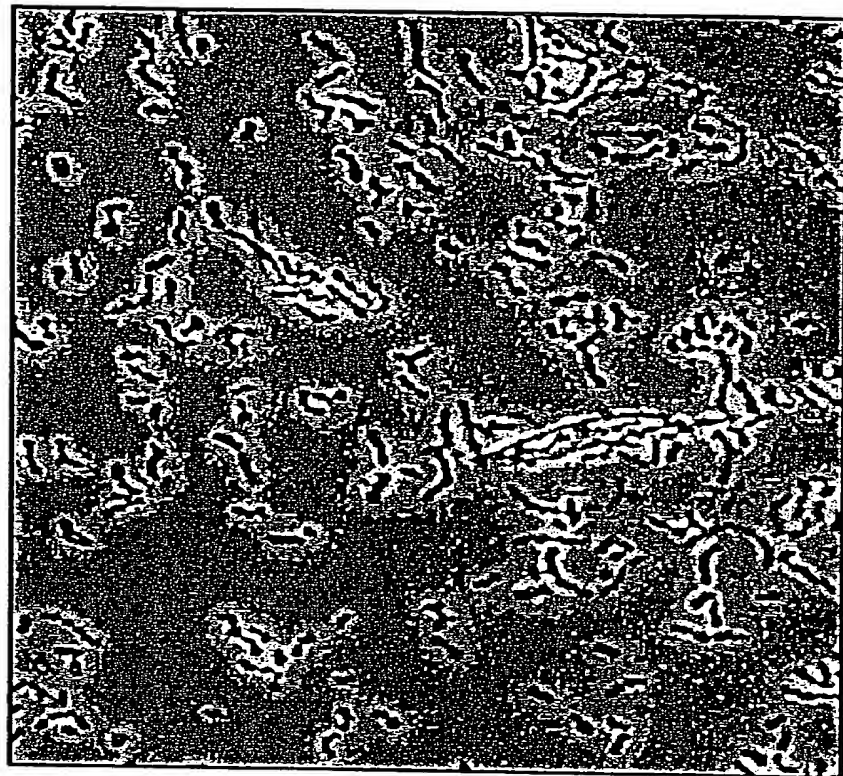
live/dead or other  
activity stain

sort

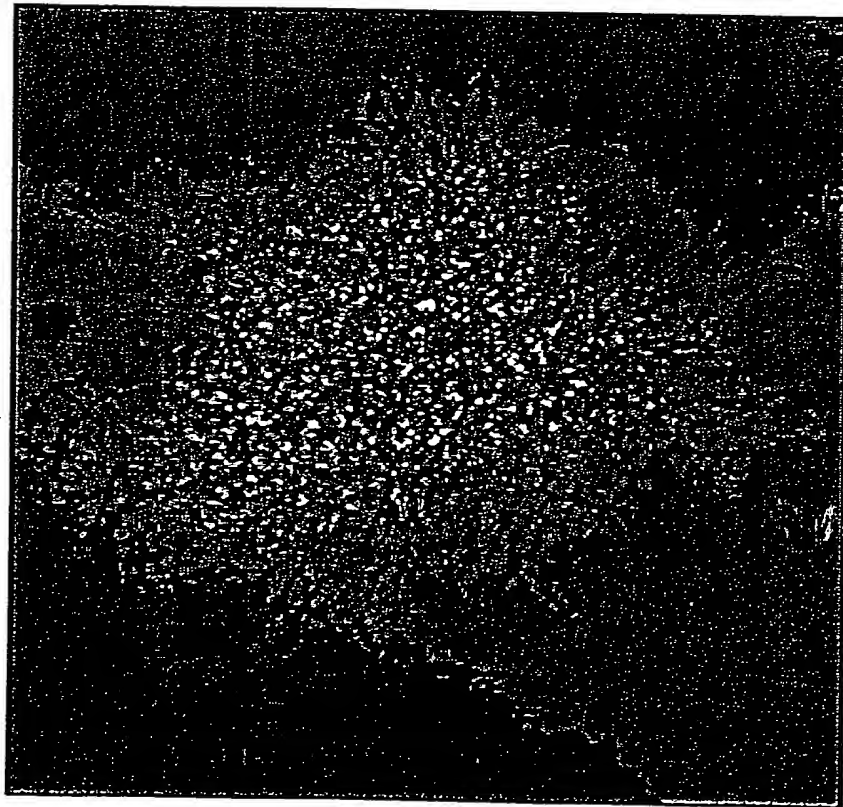


bioactive expression  
(e.g. live/dead, growth rate,  
metabolic stains etc.)

FIG. 15



*Streptomyces "diversa"*  
*Unicells*



*Streptomyces lividans*  
*mycelia*

FIG. 16

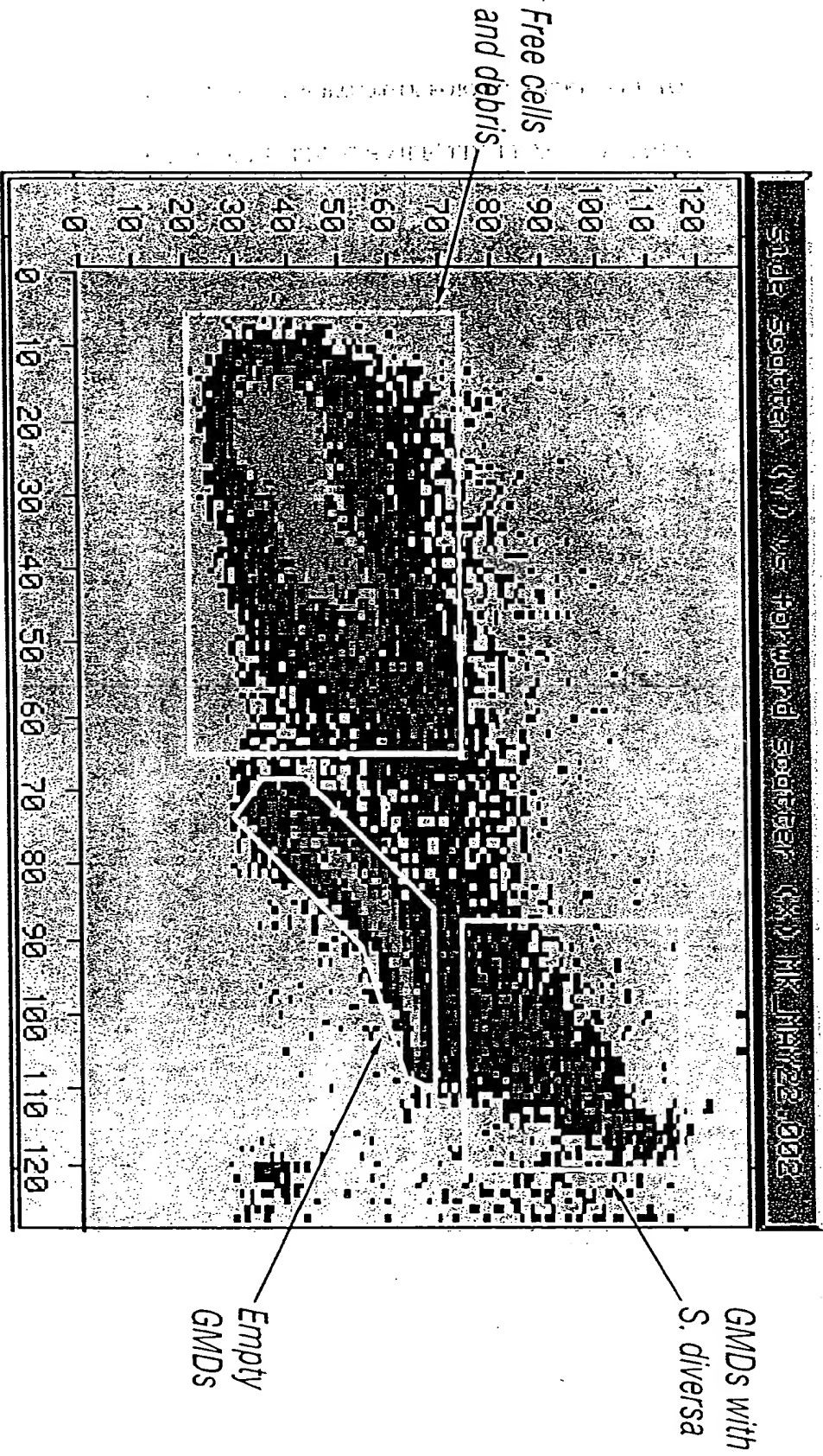


FIG. 17

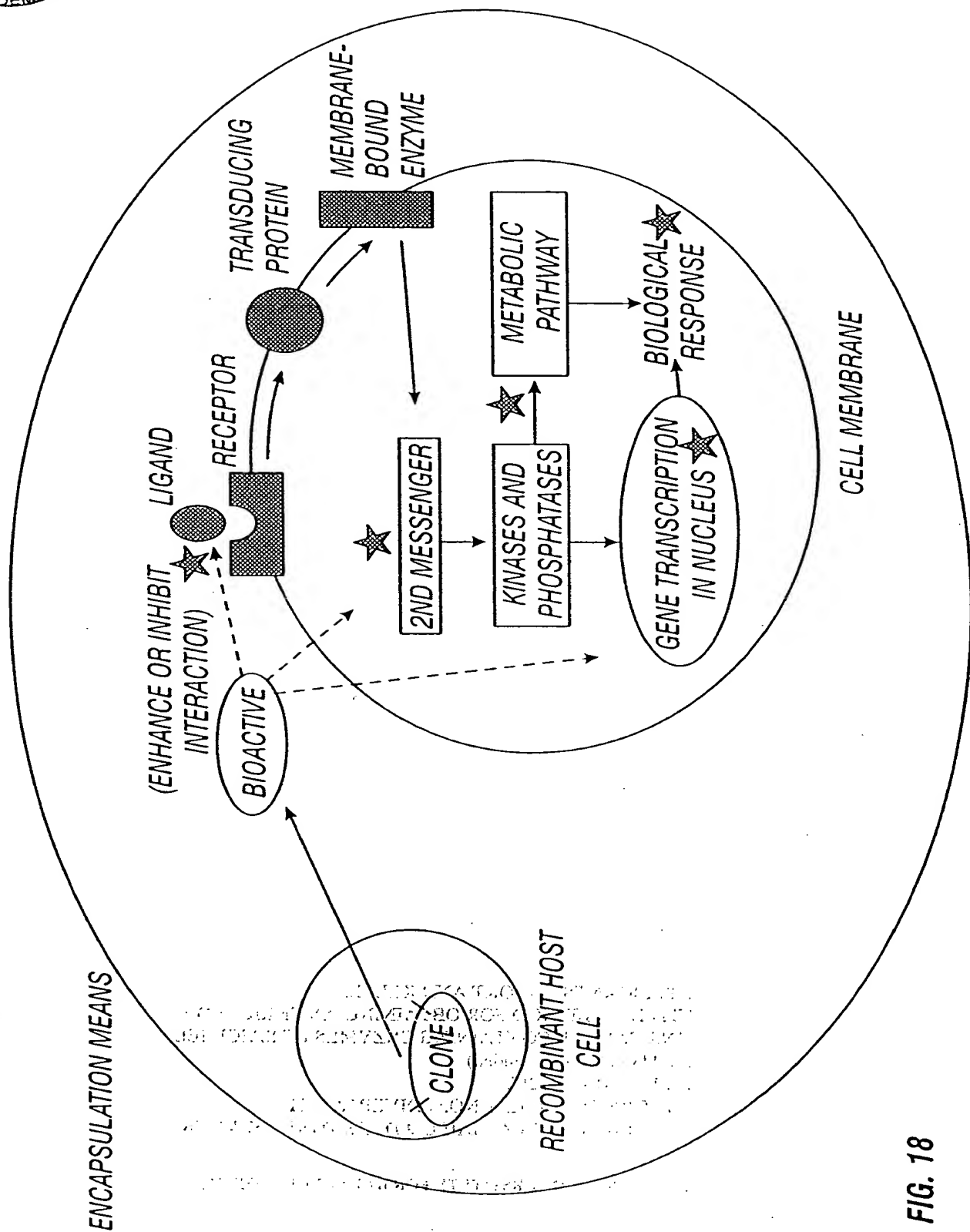


FIG. 18